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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In the Application of )  
Glennis Orloff et al. ) Examiner: B.D. Ashley  
Title: Multiple Microblade Hair Removal )  
Devices and Methods for Manufacture ) Group Art Unit: 3724  
Serial No.: 09/626,193 )  
Filed On: July 28, 2000 ) (Docket No.: 6579-0110)

Board of Patent Appeals and Interferences  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPEAL BRIEF**

Sir:

This is an appeal to the Board of Appeals from an Office Action mailed December 21, 2004, marked "final" and the subsequent Advisory Action mailed March 18, 2005, in which the Examiner indicated that claims 64, 67-69, 85-87, and 116-118 of the above-identified application were rejected. Appellants timely filed a Notice of Appeal at the U.S. Patent and Trademark Office on March 21, 2005. Therefore, the due date for filing the Appeal Brief is May 21, 2005. This brief is being filed in support of that Notice of Appeal.

One copy of this brief is being filed.

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I. REAL PARTY IN INTEREST

The real party in interest in this Appeal is EVEREADY BATTERY COMPANY, INC., of St. Louis, Missouri.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interference proceedings known to Appellants, Appellants' legal representatives, or assignees that would directly affect or be directly affected by or have a bearing on the decision of the Board of Patent Appeals and Interferences in this Appeal.

III. STATUS OF CLAIMS

Claims 1-64 and 67-118 are pending. Claims 64, 67-69, 85-87, and 116-118 have been finally rejected. Claims 1-63, 65, 66, 70-84, and 88-115, have been either previously cancelled or withdrawn from consideration and are not appealed herein.

IV. STATUS OF AMENDMENTS

Proposed amendments to claims 64 and 116 were submitted on February 22, 2005, in response to the final Office Action. In the Advisory Action mailed March 18, 2005, the Examiner indicated that the proposed amendments would not be entered because they allegedly raise new issues that would require further consideration and/or search.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The present invention is directed to a hair removal device (page 2, lines 7-8) comprising a substantially planar and rigid substrate (page 23, lines 12-13) and at least one hundred (100) micro-blades connected to the substrate (page 23, lines 16-18). The micro-blades are configured for cutting hair without damaging the skin when drawn across a skin surface.

In the Amendment filed in response to the final Office Action, Appellants proposed amending the claim to recite that each of the micro-blades comprises a blade

support and a blade attached to the blade support, the blade defining a cutting edge, wherein the blade is elevated relative to the substrate and the cutting edge is positioned below a cutting edge support surface (page 5, lines 10-12, Figures 1, 2, 11, 13, 14, 22, and 26).

#### VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Claims 64, 67, 85-87, and 116-118 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,100,506 to Sturtevant et al. (hereinafter “Sturtevant”).

B. Claims 68, 69, 85, and 116-118 stand rejected under 35 U.S.C. §103(a) as being obvious over Sturtevant.

#### VII. ARGUMENT

A. Claims 64, 67, 85-87, and 116-118 are patentable within the meaning of 35 U.S.C. §102(b).

The Examiner’s rejection of claims 64, 67, 85-87, and 116-118 under 35 U.S.C. §102(b) as allegedly being anticipated by Sturtevant is improper.

Claim 64 presently recites a hair removal device comprising a substantially planar and rigid substrate and at least one hundred (100) micro-blades connected to the substrate. The micro-blades are configured for cutting hair without damaging the skin when drawn across a skin surface. In the response to the final Office Action, Appellants proposed amending the claim to recite that each of the micro-blades comprises a blade support and a blade attached to the blade support, the blade defining a cutting edge, wherein the blade is elevated relative to the substrate and the cutting edge is positioned below a cutting edge support surface. As stated above, the proposed amendments were

not entered because they allegedly raised new issues that would require further consideration and/or search.

Appellants respectfully submit that the proposed amendments do not raise new issues. The language proposed for addition to claim 64 is “each of said micro-blades comprising, a blade support, and a blade attached to said blade support, said blade defining a cutting edge, wherein said blade is elevated relative to said substrate and said cutting edge is positioned below a cutting edge support surface...” Support for each of the micro-blades comprising “a blade support, and a blade attached to said blade support, said blade defining a cutting edge, wherein said blade is elevated relative to said substrate” is found directly in claim 116. Thus, because the language existed in claim 116 before it was proposed to be imported into claim 64, Appellants respectfully submit that the language does not raise a new issue.

The language “said cutting edge [being] positioned below a cutting edge support surface” was intended to be incorporated into claim 64 in response to the Examiner’s allegation in the final Office Action that the language “wherein the micro-blades are configured for cutting hair when drawn across a skin surface and without damaging the skin” is functional and does not define any specific structure. Support for amending the claim as such is found in the specification in the second paragraph of the Detailed Description, which explicitly describes the positioning of the cutting edge below the cutting edge support surface. Support is also found in at least Figure 1. The positioning of the cutting edge below the cutting edge support surface is the equivalent of configuring the micro-blades for cutting hair when drawn across a skin surface and without damaging the skin. Thus, Appellants respectfully submit that the proposed amendment of claim 64 to recite the foregoing language does not raise a new issue.

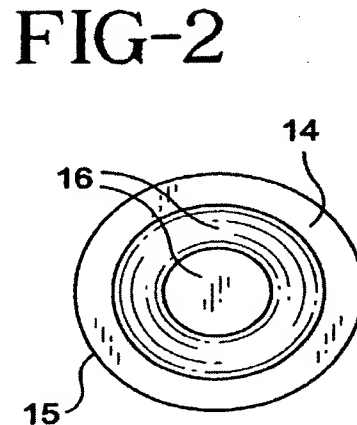
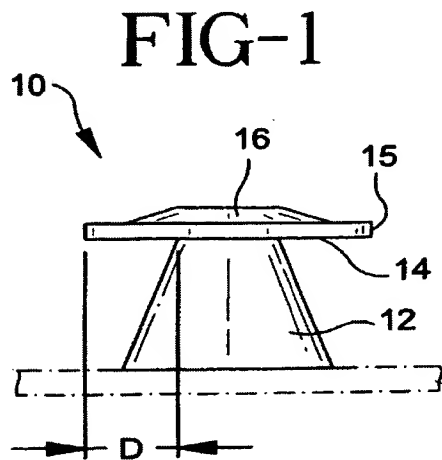
As stated above, the proposed amendments were not entered. Turning now to the claim language as it currently stands in relation to Sturtevant, Appellants note that Sturtevant is directed to cutting tools and methods of forming such tools. The tools are files and cutters formed from any material that is suited to chemical etching treatment. Preferably, the material is sheet metal that can be photochemically etched to provide tools that have either (1) cutting teeth on the flat part of the blade and are used for planing or shaping operations or (2) cutting teeth on the edge of a blade and are used for sawing. In

embodiments in which the cutting teeth are on the flat part of the blade, etching material is applied to a blank masked off with resistant material such that cutting edges formed terminate in sharpened edges in the plane of a surface of the blank. At least some of the sharpened edges may be bent out of the plane of the blank surface (as in Figures 5-9). In embodiments in which the cutting teeth are on the edge of the blade (as in Figures 11-16), a predetermined pattern of etching-resistant material is applied to the front and back surfaces of peripheral edges of the metal blank to define exposed areas separated by resist areas. The exposed areas on the front and back surfaces overlie each other. Subjecting the exposed areas to an etching treatment causes a tooth shape to be formed on the peripheral edge.

Considering claim 64 as it currently stands without being amended as proposed, Sturtevant still fails to disclose, teach, or suggest a hair removal device having a planar substrate and micro-blades connected to the substrate. The term "micro-blade" is defined in the first paragraph of the Detailed Description of the application as a blade comprising at least one edge having a radius of curvature not greater than about 1,000 angstroms. The Sturtevant reference discloses several devices that appear to resemble hack saw blades, circular saw blades, rasps, and sheet metal tools that resemble cheese graters, but it does not disclose any shaving devices or hair removal devices having blades that comprise at least one edge having a radius of curvature not greater than about 1,000 angstroms. In fact, the radiuses of curvature of the cutting edges of any of the blades, rasps, or tools shown in Sturtevant are either infinite (straight, as is shown in Figures 5-7 and 9) or so large that they are obviously far greater than 1,000 angstroms (Figures 11-16) and are therefore, for all practical intents and purposes, substantially infinite (straight). Thus, nothing in the Sturtevant reference even remotely resembles a micro-blade, i.e., a blade having an edge with a radius of curvature less than about 1,000 angstroms. Furthermore, Appellants find it doubtful that any of the saw blades or tools disclosed in Sturtevant can be realistically used as hair removal devices and respectfully assert that for the Examiner to propose such a use is nonsensical.

Furthermore, Sturtevant fails to disclose, teach, or suggest a micro-blade having all the components of the micro-blade of Appellants' invention. As is shown in Figures 1 and 2 of the present application and described in the second paragraph of the Detailed

Description, a micro-blade unit 10 comprises a blade support 12, a blade 14 having a cutting edge 15, and a cutting edge support 16. Figures 1 and 2 are reproduced below.



The saw blades, rasps, and graters of Sturtevant do not comport with Appellants' description of a micro-blade. More specifically, the blades, rasps, and graters of Sturtevant fail to include a blade support, a blade having a cutting edge, and a cutting edge support. Thus, not only does Sturtevant fail to disclose micro-blades, Sturtevant fails to disclose micro-blades having all the components as indicated by Appellants.

Sturtevant also fails to disclose, teach, or suggest a hair removal device wherein cutting edges of blades are positioned below cutting edge support surfaces, as recited in claim 64 as Appellants propose to amend that claim. Sturtevant makes no mention of cutting edge support surfaces. The sharpened edges that form cutting edges (shown at 57 in Figures 6-8 of Sturtevant) are positioned at the uppermost parts of the "teeth." Similarly, other sharpened cutting edges (shown at 85, 89, and 103 in the circular saw blade of Figures 13-16) are likewise positioned at the uppermost parts of the teeth. When the cutting edges are positioned at the uppermost parts of the teeth, as in Sturtevant, they necessarily cannot be positioned below cutting edge support surfaces, as recited in claim 64 as Appellants proposed to amend that claim. Accordingly, the positioning of cutting

edges below a cutting edge support surface, as in proposed claim 64, is patentably distinct from the positioning of cutting edges at the uppermost parts of teeth, as in Sturtevant.

To anticipate a claim under 35 U.S.C. §102, a single reference must disclose each and every element of the claimed invention. Absence from the reference of any claimed element negates anticipation. Because Sturtevant fails to disclose, teach, or suggest a hair removal device having a planar substrate and micro-blades connected thereto, as recited in claim 64, Sturtevant does not anticipate claim 64. Furthermore, because Sturtevant fails to disclose, teach, or suggest cutting edges positioned below a cutting edge support surface, as recited in claim 64 as Appellants propose that claim should be amended, claim 64, if the amendment were entered, would further not be anticipated by the Sturtevant reference. For at least these reasons, claim 64 is allowable, and Appellants respectfully request that the Examiner withdraw the rejection of claim 64.

Dependent claims, by definition, further define the subject matter of the independent claims from which they depend. Because claims 67, 85-87, and 116-118 depend from claim 64, claims 67, 85-87, and 116-118 add recitations that further define the subject matter of independent claim 64. Because claim 64 is believed to be allowable for at least the reasons presented above, claims 67, 85-87, and 116-118 are therefore also believed to be allowable. Consequently, Appellants respectfully request that the rejections of claims 67, 85-87, and 116-118 be withdrawn.

B. Claims 68, 69, 85, and 116-118 are patentable within the meaning of 35 U.S.C. §103(a).

The Examiner's rejection of claims 68, 69, 85, and 116-118 under 35 U.S.C. §103(a) as allegedly being obvious over Sturtevant is improper.

Sturtevant is non-analogous art and should not be relied on in making a rejection of the present application. In order to be able to rely on a particular reference as a basis for a rejection of an application, the reference must either be in the field of endeavor or at least be reasonably pertinent to the particular problem with which the invention is concerned. Appellants' invention pertains to hair removal devices and, more particularly,

to hair removal devices having micro-blades. There is nothing about the saw blades, grater-like tools, and methods of chemically etching tools of Sturtevant that even resembles hair removal devices. Thus, Appellants respectfully assert that the Sturtevant reference cannot be relied on as a basis for the rejection of the present application.

Furthermore, for an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. The Examiner can satisfy this burden only by showing some objective teaching in the cited documents of record that would lead an individual of ordinary skill in the art to combine the relevant teachings of the references.

The Examiner has not shown by any objective teaching in the Sturtevant reference that an individual of ordinary skill in the art would use the Sturtevant reference or combine it with any other reference to arrive at the invention as recited in claim 64. The Examiner's allegation that "the prior art is fully capable of cutting hair no matter how poorly it may or may not perform" is erroneous. The devices are fully capable of removing layers of skin to which some hair may be attached, but they are not devices that can remove hair in and of itself. Furthermore, the Examiner has not even alleged that claim 64 is obvious. Accordingly, because the Examiner has not made a showing that claim 64 is obvious, nor has the Examiner alleged that claim 64 is obvious, claim 64 is necessarily non-obvious.

If an independent claim is non-obvious under 35 U.S.C. §103, then any claim depending therefrom is also non-obvious. Because claims 68, 69, 85, and 116-118 depend from claim 64, and because claim 64 is non-obvious under 35 U.S.C. §103, claims 68, 69, 85, and 116-118 are also necessarily non-obvious. Appellants, therefore, respectfully submit that claims 68, 69, 85, and 116-118 are allowable. Accordingly, Appellants respectfully request that the rejections of claims 68, 69, 85, and 116-118 be withdrawn.

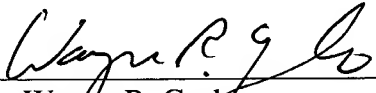
#### C. Conclusion



For the reasons discussed above, this application is in a condition for allowance and thus reversal of the outstanding rejections and allowance of the application is appropriate.

A check in the amount of \$500.00 is included with the submission of this Appeal Brief. If additional charges are incurred with respect to this Appeal Brief, they may be charged to Deposit Account No. 503342 maintained by Appellants' attorneys.

Respectfully submitted,

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## VIII. CLAIMS APPENDIX

64. A hair removal device comprising:  
a substantially planar and rigid substrate; and  
at least 100 micro-blades connected to said substrate,  
wherein the micro-blades are configured for cutting hair when drawn across a skin surface and without damaging the skin.
67. A hair removal device according to claim 64 comprising at least about 200 of said micro-blades.
68. A hair removal device according to claim 64 comprising at least about 500 of said micro-blades.
69. A hair removal device according to claim 64 comprising at least about 1000 of said micro-blades.
85. A hair removal device according to claim 64 wherein said blades are each mounted on separate blade supports.
86. A hair removal device according to claim 64 wherein said blades are arranged in ordered columns and rows on said substrate.

87. A hair removal device according to claim 64 wherein said blades are arranged in staggered columns and rows on said substrate.

116. The hair removal device of claim 64 wherein:

the substrate has a generally flat upper surface; and

the micro-blades each comprise; a blade support attached to the substrate and extending above the generally flat upper surface of the substrate, and a blade attached to the blade support and elevated above the upper surface of the substrate, wherein:

the blade defines a cutting edge; and

the cutting edge is adapted in size and shape and oriented relative to the upper surface to cut hair when drawn across a skin surface and without damaging the skin surface.

117. The hair removal device of claim 116 wherein the blade support of each micro-blade is generally perpendicular to the upper surface of the substrate.

118. The hair removal device of claim 116 wherein each cutting edge is generally parallel to the upper surface of the substrate.

IX. EVIDENCE APPENDIX

No evidence is submitted with this Appeal Brief.

X. RELATED PROCEEDINGS APPENDIX

No related proceedings are known to Appellants, Appellants' legal representatives, or assignees.